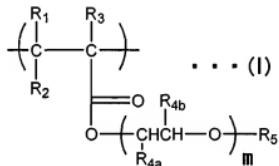


AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions, and listings, of claims in this application.

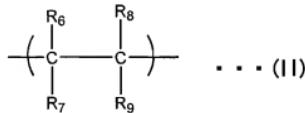
Claim 1 (Currently Amended): A solid polymer electrolyte comprising an electrolyte salt, and a copolymer in which

a block chain A containing a repeating unit represented by a formula (I) shown below:



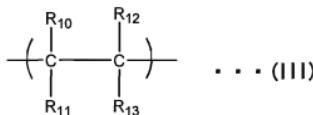
(wherein, R_1 to R_3 each represent, independently, a hydrogen atom or a hydrocarbon group of C1 to C10, R_1 and R_3 may be bonded together to form a ring, R_{4a} and R_{4b} each represent, independently, a hydrogen atom or a methyl group, R_5 represents a hydrogen atom, a hydrocarbon group, an acyl group, or a silyl group, m represents an integer from [12]10 to 100, and individual R_{4a} and R_{4b} groups are either identical or different),

a block chain B containing a repeating unit represented by a formula (II) shown below:



(wherein, R_6 to R_8 each represent, independently, a hydrogen atom or a hydrocarbon group of C1 to C10, and R_9 represents an aryl group), and

a block chain C containing a repeating unit represented by a formula (III) shown below:



(wherein, R₁₀ to R₁₂ each represent, independently, a hydrogen atom or a hydrocarbon group of C1 to C10, and R₁₃ represents an aryl group or a heteroaryl group)

are arranged in a sequence B, A, [[C.]]C,

wherein the copolymer exhibits a microphase separated structure.

Claim 2 (**Canceled**).

Claim 3 (**Previously Presented**): A solid polymer electrolyte according to claim 1, wherein said block chains A to C form a copolymer with a B-A-C bonding sequence.

Claim 4 (**Previously Presented**): A solid polymer electrolyte according to claim 1, wherein a degree of polymerization of a repeating unit represented by said formula (I) is at least 10.

Claim 5 (**Previously Presented**): A solid polymer electrolyte according to claim 1, wherein a degree of polymerization of a repeating unit represented by said formula (II) is at least 5.

Claim 6 (**Previously Presented**): A solid polymer electrolyte according to claim 1, wherein a degree of polymerization of a repeating unit represented by said formula (III) is at least 5.

Claims 7-8 (**Canceled**).

Claim 9 (Previously Presented): A solid polymer electrolyte according to claim 1, wherein said group R₁₃ in said formula (III) is an aryl group, and a degree of polymerization of a repeating unit represented by said formula (III) is at least 5.

Claim 10 (Canceled).

Claim 11 (Previously Presented): A solid polymer electrolyte according to claim 1, wherein a molar ratio ((I)/((II)+(III))) between repeating units represented by said formula (I), and a combined total of repeating units represented by said formula (II) and repeating units represented by said formula (III) is within a range from 1/30 to 30/1.

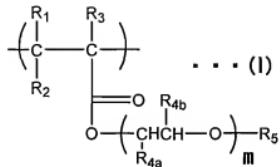
Claim 12 (Previously Presented): A solid polymer electrolyte according to claim 1, wherein a number average molecular weight of said copolymer is within a range from 5,000 to 1,000,000.

Claim 13 (Canceled).

Claim 14 (Currently Amended): A solid polymer electrolyte according to claim 1, wherein said electrolyte salt is one or more materials selected from ~~[[a]]~~the group consisting of alkali metal salts, quaternary ammonium salts, quaternary phosphonium salts, transition metal salts, and protonic acids.

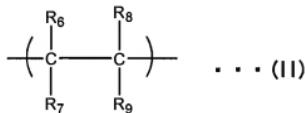
Claim 15 (Previously Presented): A solid polymer electrolyte according to claim 1, wherein said electrolyte salt is a lithium salt.

Claim 16 (Currently Amended): A copolymer in which
a block chain A containing a repeating unit represented by a formula (I) shown below:



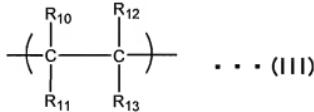
(wherein, R₁ to R₃ each represent, independently, a hydrogen atom or a hydrocarbon group of C1 to C10, R₁ and R₃ may be bonded together to form a ring, R_{4a} and R_{4b} each represent, independently, a hydrogen atom or a methyl group, R₅ represents a hydrogen atom, a hydrocarbon group, an acyl group, or a silyl group, m represents an integer from [[2]]10 to 100, and individual R_{4a} and R_{4b} groups are either identical or different),

a block chain B containing a repeating unit represented by a formula (II) shown below:



(wherein, R₆ to R₈ each represent, independently, a hydrogen atom or a hydrocarbon group of C1 to C10, and R₉ represents an aryl group), and

a block chain C containing a repeating unit represented by a formula (III) shown below:



(wherein, R_{10} to R_{12} each represent, independently, a hydrogen atom or a hydrocarbon group of C1 to C10, and R_{13} represents an aryl group or a heteroaryl group)

are arranged in a sequence B, A, $[[C.]]C.$

wherein the copolymer exhibits a microphase separated structure.

Claim 17 (Original): A copolymer according to claim 16, wherein said block chains A to C are bonded together in a B-A-C sequence.

Claim 18 (Previously Presented): A copolymer according to claim 16, wherein a degree of polymerization of a repeating unit represented by said formula (I) is at least 10.

Claim 19 (Previously Presented): A copolymer according to claim 16, wherein a degree of polymerization of a repeating unit represented by said formula (II) is at least 5.

Claim 20 (Previously Presented): A copolymer according to claim 16, wherein a degree of polymerization of a repeating unit represented by said formula (III) is at least 5.

Claims 21-22 (Canceled).

Claim 23 (Previously Presented): A copolymer according to claim 16, wherein said group R_{13} in said formula (III) is an aryl group, and a degree of polymerization of a repeating unit represented by said formula (III) is at least 5.

Claim 24 (Previously Presented): A copolymer according to claim 16, wherein a molar ratio $((I)/((II)+(III)))$ between repeating units represented by said formula (I), and a combined total of repeating units represented by said formula (II) and repeating units represented by said formula (III) is within a range from 1/30 to 30/1.

Claim 25 (Previously Presented): A copolymer according to claim 16, wherein a number average molecular weight of said copolymer is within a range from 5,000 to 1,000,000.

Claim 26 (Canceled).

Claim 27 (Previously Presented): A method of producing a copolymer according to claim 16, which utilizes a living radical polymerization in which a transition metal complex is used as a catalyst, and an organohalogen compound comprising 1 or more halogen atoms is used as an initiator.

Claims 28-29 (Canceled).